

WHAT IS CLAIMED IS:

1. A transfer device comprising:

a housing;

a supply roll rotatably mounted to the housing, the supply roll having a wound supply of liner wound thereon, the liner having an adhesive carrying surface with an adhesive provided thereon;

a take-up roll rotatably mounted to the housing, the take-up roll having at least an end portion of the liner connected thereto such that rotation of the take-up roll in a take-up direction winds portions of the liner unwound from the supply roll onto the take-up roll; and

an application head comprising:

a plurality of rollers rotatable about substantially parallel axes spaced apart from one another; and

a closed-loop belt trained about the plurality of rollers to provide a transfer surface facing outwardly of the device, the rotation of the rollers enabling the belt to travel around the rollers,

a portion of the liner between the supply roll and the take-up roll being trained over the application head with the adhesive carrying surface facing outwardly of the device and the transfer surface of the belt engaging a backside surface of the liner opposite the adhesive carrying surface,

the head being provided on the device to enable the adhesive to be transferred to a target substrate by engaging the adhesive carrying surface on the portion of the liner trained over the belt with the target substrate and applying pressure to bond the adhesive to the target substrate, and

the rotation of the take-up roll, the supply roll, and the plurality of rollers of the application head enabling advancement of the liner from the supply roll to the take-up roll with the belt traveling around the rollers of the application head to facilitate movement of the liner over the application head.

2. A transfer device according to claim 1, wherein the supply roll and the take-up roll are rotatably mounted on a removable cartridge body removably mounted to the housing.

3. A transfer device according to claim 1, wherein the belt comprises a silicone material.

4. A transfer device according to claim 1, wherein the plurality of rollers are substantially the same size and configuration.

5. A transfer device according to claim 1, wherein the surface of the belt comprises a material that is substantially the same as a material comprising the backside surface of the liner.

6. A transfer device according to claim 5, wherein the material comprising the surface of the belt and the material comprising the backside surface of the liner are both silicone.

7. A transfer device according to claim 1, wherein the transfer device is an indefinite length transfer device.

8. A transfer device according to claim 1, wherein the transfer device is a definite length transfer device and the transfer device further comprises an advancer operatively connected to at least the take-up roll and configured to rotate the take-up roll in an indexing manner to affect the advancement of the liner.

9. A transfer device according to claim 8, further comprising a locator disposed at one end of the housing adjacent the application head so as to provide a locating surface for the device.

10. A transfer device according to claim 9, wherein the locator is biased in an inoperative position away from the device, the locator being positioned relative to the applicator head to enable the locating surface to be engaged with the target substrate when transferring the adhesive prior to engaging the adhesive carrying surface with the target substrate, the locator then being moveable inwardly relative to the application head so as to enable the head to thereafter engage the adhesive carrying surface.

11. A transfer device for use with a cartridge, the cartridge comprising a body with a longitudinal axis, a supply roll rotatably mounted to the body on the longitudinal axis,

the supply roll comprising a wound length of liner having an adhesive carrying surface with an adhesive provided thereon, and a take-up roll rotatably mounted to the body on the longitudinal axis in spaced relation to the supply roll, the take-up roll having at least an end portion of the liner connected thereto such that rotation of the take-up roll in a take-up direction winds portions of the liner unwound from the supply roll onto the take-up roll, the transfer device comprising:

a housing defining a cartridge receiving space;

an extension member slidably connected to the housing for rectilinear movement relative to the housing along an extension axis; and

a cartridge support slidably connected to the extension member for rectilinear movement relative to the extension member along the extension axis, the cartridge support being constructed to mount the cartridge thereon;

the cartridge support, the extension member, and the housing being constructed and arranged to enable the cartridge support and the extension member to be moved between (a) an extended position, wherein the extension member extends outwardly from the housing along the extension axis and the cartridge support extends outwardly from the extension member along the extension axis to enable the cartridge to be mounted to the cartridge support, and (b) a retracted position, wherein the extension member and the cartridge support are moved inwardly into the cartridge receiving space so that, when the cartridge is mounted to the cartridge support, the cartridge is moved into an operative position in the cartridge receiving space.

12. The transfer device of claim 11, further comprising:

an application head provided on the device to have a portion of the liner extending between the supply and take-up rolls of the cartridge trained thereover when the cartridge is in the operative position, the applicator head being provided to enable the adhesive to be transferred to a target substrate by engaging the adhesive carrying surface on the portion of the liner being trained over the head with the target substrate and applying pressure to bond the adhesive to the target substrate.

13. The transfer device of claim 12, wherein the application head is provided on the cartridge support.

14. The transfer device of claim 12, wherein the cartridge support includes (a) a cartridge support portion slidably connecting the cartridge support to the extension member for rectilinear movement along the extension axis as aforesaid, and (b) a head support portion slidably connected to the cartridge support portion for rectilinear movement relative to the cartridge support portion along the extension axis, the applicator head being provided on the head support portion,

the rectilinear movement of the head support portion relative to the cartridge support portion along the extension axis enabling (a) the head to be moved outwardly relative to the cartridge support portion when the cartridge support and the extension member are in the extended position to facilitate mounting the cartridge to the cartridge support portion, and (b) the head to be moved inwardly relative to the cartridge support portion as the cartridge support and the extension member are moved to the retracted position with the cartridge on the cartridge support portion to facilitate engagement of the head with the portion of the liner extending between the supply roll and the take-up roll of the cartridge.

15. The transfer device of claim 14, wherein the head support portion has an end cap portion configured to engage the housing and form a part thereof when the extension member and the cartridge support are in the retracted position.

16. The transfer device of claim 15, wherein the housing has a cartridge receiving opening along the extension axis through which the extension member and the cartridge support are moved outwardly to the extended position and moved inwardly to the retracted position;

the end cap portion being complementary to the cartridge receiving opening to close the cartridge receiving opening when the extension member and the cartridge support are in the retracted position.

17. The transfer device of claim 11, wherein the cartridge support has an end cap portion configured to engage the housing and form a part thereof when the extension member and the cartridge support are in the retracted position.

18. The transfer device of claim 17, wherein the housing has a cartridge receiving opening along the extension axis through which the extension member and the cartridge support are moved outwardly to the extended position and moved inwardly to the retracted position;

the end cap portion being complementary to the cartridge receiving opening to close the cartridge receiving opening when the extension member and the cartridge support are in the retracted position.

19. The transfer device of claim 12, wherein the application head comprises:

a plurality of rollers rotatable about substantially parallel axes spaced apart from one another; and

a closed-loop belt trained about the plurality of rollers to provide a transfer surface facing outwardly of the device, the rotation of the rollers enabling the belt to travel around the rollers,

the portion of the liner between the supply roll and the take-up roll being trained over the application head with the adhesive carrying surface facing outwardly of the device and the transfer surface of the belt engaging a backside surface of the liner opposite the adhesive carrying surface, and

the rotation of the take-up roll, the supply roll, and the plurality of rollers of the application head enabling advancement of the liner from the supply roll to the take-up roll with the belt traveling around the rollers of the application head to facilitate movement of the liner over the application head.

20. The transfer device of claim 11, wherein the transfer device is an indefinite length transfer device.

21. The transfer device of claim 11, wherein the transfer device is a definite length transfer device and the transfer device further comprises an advancer operatively connected to at least the take-up roll so as to cause rotation of the take-up roll in an indexing manner.

22. A transfer device comprising:

a housing defining a cartridge receiving space;

a cartridge comprising:

a body with a longitudinal axis;

a supply roll rotatably mounted to the body on the longitudinal axis, the supply roll comprising a wound length of liner having an adhesive carrying surface with an adhesive provided thereon; and

a take-up roll rotatably mounted to the body on the longitudinal axis in spaced relation to the supply roll, the take-up roll having at least an end portion of the liner connected thereto such that rotation of the take-up roll in a take-up direction winds portions of the liner unwound from the supply roll onto the take-up roll;

an extension member slidably connected to the housing for rectilinear movement relative to the housing along an extension axis; and

a cartridge support slidably connected to the extension member for rectilinear movement relative to the extension member along the extension axis, the cartridge support being constructed to mount the cartridge thereon,

the cartridge support, the extension member, and the housing being constructed and arranged to enable the cartridge support and the extension member to be moved between (a) an extended position wherein the extension member extends outwardly from the housing along the extension axis and the cartridge support extends outwardly from the extension member along the extension axis to enable the cartridge to be mounted to the cartridge support, and (b) a retracted position, wherein the extension member and the cartridge support are moved inwardly into the cartridge receiving space so that, when the cartridge is mounted to the cartridge support, the cartridge is moved into an operative position in the cartridge receiving space.

23. A method for loading a cartridge into a transfer device,

the cartridge comprising:

a body with a longitudinal axis;

a supply roll rotatably mounted to the body on the longitudinal axis,

the supply roll comprising a wound length of liner having an adhesive carrying surface with an adhesive provided thereon; and

a take-up roll rotatably mounted to the body on the longitudinal axis in spaced relation to the supply roll, the take-up roll having at least an end portion of the liner connected thereto such that rotation of the take-up roll in a take-up direction winds portions of the liner unwound from the supply roll onto the take-up roll;

the transfer device comprising:

a housing defining a cartridge receiving space;

an extension member slidably connected to the housing for rectilinear movement relative to the housing along an extension axis; and

a cartridge support slidably connected to the extension member for rectilinear movement relative to the extension member along the extension axis, the cartridge support being constructed to mount the cartridge thereon,

the cartridge support, the extension member, and the housing being constructed and arranged to enable the cartridge support and the extension member to be moved between (a) an extended position wherein the extension member extends outwardly from the housing along the extension axis and the cartridge support extends outwardly from the extension member along the extension axis to enable the cartridge to be mounted to the cartridge support, and (b) a retracted position, wherein the extension member and the cartridge support are moved inwardly into the cartridge receiving space so that, when the cartridge is mounted to the cartridge support, the cartridge is moved into an operative position in the cartridge receiving space;

the method comprising:

sliding the cartridge support and the extension member outwardly of the housing to the extended position;

mounting the cartridge to the cartridge support in the extended position; and

sliding the cartridge support and the extension member inwardly into the cartridge receiving space of the housing to the retracted position to move the cartridge into the operative position in the cartridge receiving space.

24. The method of claim 23, further comprising training the liner over an application head of the transfer device.

25. A cartridge for mounting to different types of transfer devices, the cartridge comprising:

a supply roll having a supply of liner wound thereon, the liner being provided with an adhesive thereon;

a take-up roll having at least an end of the liner connected thereto such that rotation of the take-up roll winds the liner thereon;

a cartridge body connecting the supply roll and the take-up roll; and

an applicator head having (a) a definite length transfer surface configured to engage the liner opposite the adhesive and apply a definite length of adhesive from the liner to a target substrate and (b) an indefinite length transfer surface configured to engage the liner opposite the adhesive and apply an indefinite length of adhesive from the liner to a target substrate;

the applicator head being movable to a definite length transfer position having the liner trained over the definite length transfer surface and enabling the cartridge to be removably mounted in an operative position to a definite length adhesive transfer device for transferring adhesive to the target substrate, the definite length adhesive transfer device comprising a frame configured to receive the cartridge, and an advancer constructed to affect rotation of the take-up and supply rolls to advance the liner so as to position a definite length portion thereof adjacent the definite length transfer surface, thus enabling the definite length transfer surface to press the definite length portion of the liner against the target substrate and transfer the definite length of adhesive thereto;

the applicator head being movable to an indefinite length transfer position having the liner trained over the indefinite length transfer surface and enabling the cartridge to be removably mounted in an operative position to an indefinite length adhesive transfer device for transferring adhesive to the target substrate, the indefinite length adhesive transfer device comprising a frame configured to receive the cartridge so that the indefinite length transfer surface can engage the liner against the target substrate and transfer an indefinite

length of adhesive thereto by moving the indefinite length transfer device along the target substrate to apply a length of adhesive as desired.

26. A cartridge according to claim 25, wherein the applicator head is pivotable between the definite and indefinite length transfer positions.

27. A cartridge according to claim 26, wherein the applicator head is pivotally mounted directly to the cartridge body.

28. A cartridge according to claim 27, wherein the applicator head has three sides joined by corners to form a generally triangular configuration, one of the three sides being the definite length transfer surface and the corner opposite the definite length transfer surface providing the indefinite length transfer surface.

29. A cartridge according to claim 28, wherein at least the corner providing the indefinite length transfer surface is rounded.

30. A cartridge according to claim 25, wherein the cartridge body is a plate-like member.

31. A cartridge according to claim 30, wherein the plate-like member is cardboard.